

Notice of Allowability

Application No.

10/646,585

Examiner

Andy S. Rao

Applicant(s)

SRINIVASA ET AL.

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

ANDY RAO
EXAMINER

Allowable Subject Matter

1. Claims 1-42 are allowed.

Independent claims 1, 12, 23, and 34-42 recite a video object detection apparatus and method including "...an edge symmetry detection unit comprising: a vertical symmetry detector adapted to compute the vertical symmetry of at least one of the set of vertical edge pixels and the set of horizontal edge pixels in each column about a horizontal axis passing through the object segment, and to produce a vertical symmetry value for columns within the object segment; a horizontal symmetry detector adapted to compute the horizontal symmetry of at least one of the set of vertical edge pixels and set of horizontal edge pixels in each row about a vertical axis passing through the object segment, and to produce a horizontal symmetry value for rows within the object segment; and, an edge symmetry feature set computation apparatus adapted to compute an edge symmetry feature set for the object segment based upon the vertical symmetry values and the horizontal symmetry values; and, a background modeling unit comprising: a background modeling apparatus adapted to isolate from a current frame at least one segment of the current frame, each of the at least one segments containing a possible object of interest within the current frame, on a frame- wise basis, and to provide as an output each of the at least one segments..." which are features that are not anticipated nor obvious over the art of record. Dependent claims 2-11, 13-22, and 24-33 are allowed for the reasons concerning the independent claims.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sun discloses object segmentation with background extraction and moving boundary techniques. Lipton discloses a video scene background maintenance using statistical pixel modeling. Das discloses a content based video compression. Lin discloses a method for ordering image spaces. Kan discloses a method of using MPEG-7 standard in object segmentation.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
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Art Unit 2621

ANDY RAO
PRIMARY EXAMINER



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